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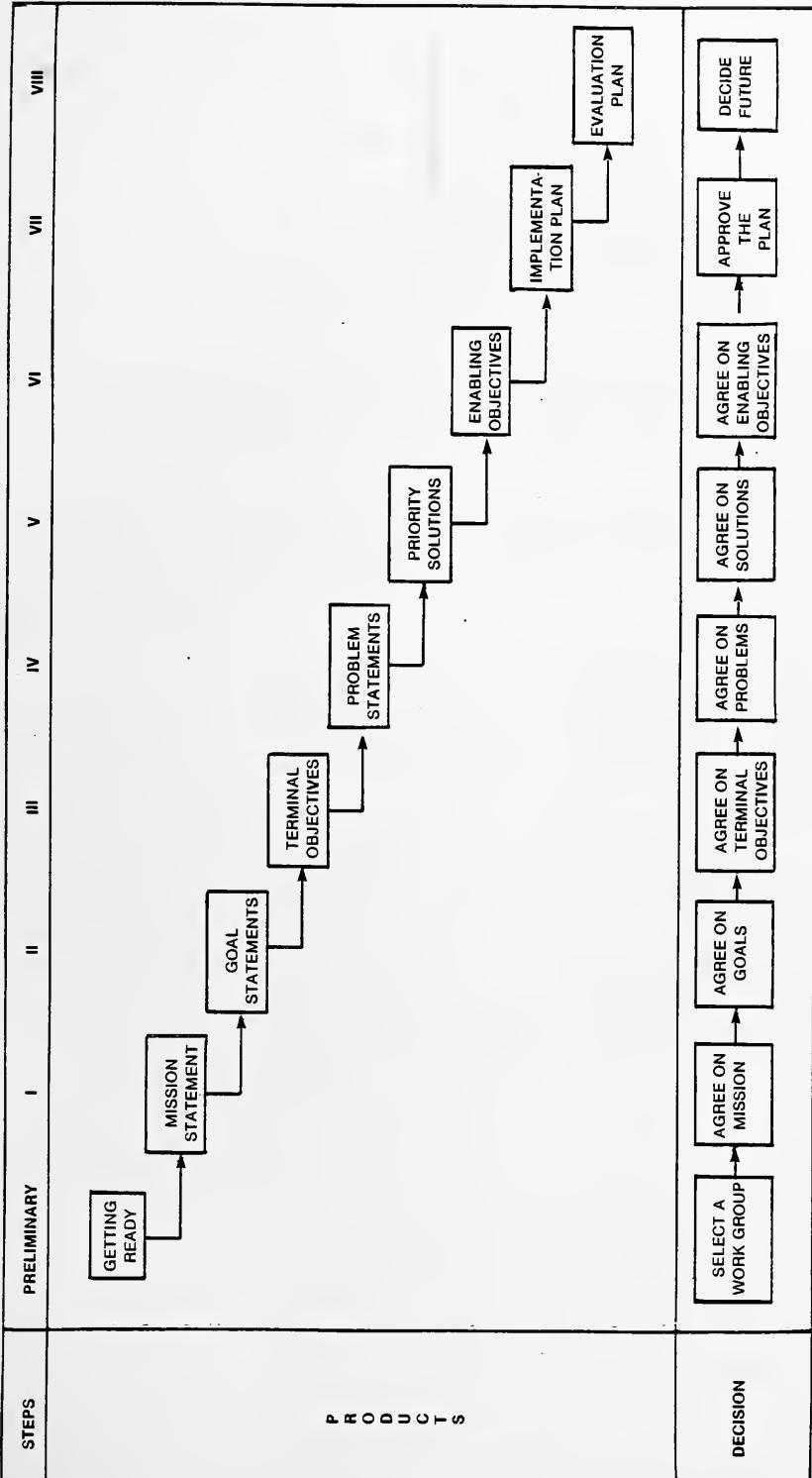
GUIDE FOR PREPARING AND IMPLEMENTING FIRE TRAINING AND EDUCATION PLANS



National Fire Academy
Field Programs Division



Fire Education and Training Planning Process





FOREWORD

The challenge presented to this nation's fire service organizations, regardless of their individual situations or characteristics, deserves strategic planning. No need within the fire service is more apparent than the necessity to ensure that those who respond to the challenge of fire are prepared to do so.

The purpose of this document is to guide readers through a process for preparing and implementing a fire training and education plan. The process presented in this guide is based upon the practical experience of numerous state fire organizations. In 1977, through the Academy Planning and Assistance Program (APAP), the National Fire Academy became involved in assisting fire organizations in statewide organizational design development, needs identification and long-term training and education planning.

The focus of the APAP effort was to assist the individual states in the assessment of their fire service training and education delivery systems, the strengths and needs of those systems and the adoption of a five year Plan of Action designed to meet identified needs. APAP provided both financial grants and technical assistance to participating state fire organizations. As a result, thirty-eight states assessed the structure and needs of their fire training and education delivery systems. In doing so, they completed the first phase of the APAP program. Eleven states successfully navigated the entire APAP course. Their efforts culminated in a comprehensive five-year "Plan of Action" that provided the framework for meeting their fire training and education needs on a planned, systematic basis.

Fire protection leaders throughout the country have continued to express their desire for assistance in the development of long-term plans for fire service training and education. Prior to the publication of this guide, planning information has been fragmented. The method suggested in this guide incorporates the most effective planning elements derived from states that previously participated in the Academy Planning and Assistance Program. Significant respect and gratitude is due these states, for they charted the unknown territory of long-term training and education planning. No greater recognition of their valuable contribution can be offered than to defer to their experience and follow their lead.

**Joseph L. Donovan
Superintendent
National Fire Academy**



PREFACE

This guide consists of chapters outlining both preliminary and advanced requirements for planning fire service personnel training and education. It is organized to set forth a step-by-step process for completing a comprehensive planning effort. The suggested approach set forth in this guide has been developed and proven over a seven year period. While its genesis is statewide planning, with only minimum modification it can be adapted and become an effective tool for county and local application.

Each component depicted on the preceding graph is fully explained in this guide. Although every attempt has been made to provide all the information necessary to follow the conceptual framework presented, it should nonetheless be realized that individual and collective commitment is also a primary requirement.

The history of the Academy Planning and Assistance Program presents the inescapable conclusion that authentic commitment, targeted diligence, and continually regenerated perseverance were the distinguishing characteristics of state fire organizations that succeeded in their planning efforts. The purpose of this document is to serve as a guide to successful planning for those who are committed to undertake and complete long-range fire personnel training and education planning.

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We are joined together as much by our differences as by our similarities.

Needs are different in different states.

INTRODUCTION

Chapter 1

Certainly among the most enriching influences of the fire service is the diversity of its composition. We are joined together as much by our differences as by our similarities; for it is our differences, as well as our ability to transcend them, that enlivens the fire service. We face the common problem of fire, but we do so as unique individuals within a wide variety of organizational structures.

Each State Fire Training System must respond to a complex set of internally and externally imposed demands, conditions and influences. The composition of the fire service in Delaware is different than the composition of the fire service in Alaska. With no isolated communities, Delaware does not need to concern itself with scheduling fire training opportunities for fire personnel in remote locations. Alaska, on the other hand, does not need to contend with the maintenance of a centralized fire training facility.

A small community in Idaho does not need to train for high-rise fires to the extent that the Chicago, Illinois fire department does. The requirement for an advanced college degree in Fire Service Administration might be appropriate in larger cities, but less appropriate in smaller ones. One department may require the possession of a fire related Associate degree from a community college prior to entry into the fire service, while another may require attendance at a state fire training academy. The point is this: Fire service training and education needs differ radically not only between states, but also within states.

The intent of this guide is to provide a method of identifying, controlling and systematically planning for fire training and education needs. If the process presented in this guide is to be successful in its intent, then many individuals and groups must participate in the dynamics of the process.

The complete process requires group participation.

Although the idea for the development of a systematic approach to training and education needs may originate with a single individual, the accomplishment of the complete process requires group participation.

There are many preliminary issues to be deliberated and resolved prior to reaching the point where an organization can state emphatically that

- This is what we are
- This is what we need
- This is why we need what we need
- This is how we are going to get what we need

A strong grasp of the concepts of authority and responsibility are essential.

Defining Planning Authority

Human beings are territorial and so are the organizations they create. Many planning efforts lose momentum, or fail completely, because the planners did not recognize the importance of the concepts of authority and responsibility. The emphasis of this guide is on the development and implementation of a state fire training and education plan. Such a plan is extremely difficult to develop and accomplish if an organization does not realize that

- Many people must be brought into the planning process, and each of these people will have varying types and degrees of authority and responsibility.
- People will be protective of the authority and responsibility they hold.

On a very basic level, authority gives a person or an organization the "right" to do something. Responsibility means that a person, or organization, is "accountable" for doing something. Not to recognize and deal effectively with the rightful, or in some cases assumed, authority and responsibility of others is an error with sometimes serious consequences. Many good ideas have often been lost because lines of authority and responsibility were violated.

FIRE TRAINING AND EDUCATION

In many states the State Legislature assigns fire training and education responsibilities to specific state-level organizations. The Legislature has the "authority" to make such an assignment. The organization assigned the "responsibility" for fire training and education by the Legislature is "accountable" to the Legislature for carrying out its duties. For another organization within the state to attempt to usurp this responsibility would cause conflict. If the conflict isn't effectively resolved, strained relationships may develop. If strained relationships develop, the attention of the planning effort may be diverted and misdirected.

Be continually
vigilant of
existing lines
of authority
and
responsibility.

Individuals or groups interested in developing or implementing specific, long-term, statewide training and education plans must be continually vigilant of existing lines of authority and responsibility. They must avoid actions that hold the potential for being viewed as incursions into the rightful authority and responsibility of others, especially key individuals or groups within the state fire training and education organizational design.

Fire fighters within a state may, for example, see a need for a baccalaureate degree in Fire Service Administration, but they have no authority or responsibility to begin formal negotiations with the State Board of Higher Education without first obtaining the cooperation, guidance, and specific approval of state-level fire training and education policy makers.

Significant
skills are
essential in
nurturing an
"idea" into a
"reality."

The idea for improved statewide fire training and education can come from any level within a state's fire training and education organizational design. It can be a singular effort or the effort of an ad hoc committee. However, the eventual success of the idea is heavily dependent upon widespread cooperation and multi-level participation. Significant skills are essential in nurturing an "idea" into a "reality".

Identify Key Players

It is wise to involve the key players in the present state fire service training and education system early in the planning process. They can serve in the role of an "OVERSEEING COMMITTEE" to get things started. Their knowledge and support can help keep things in proper perspective.

The Work
Group will
actually
develop the
plan.

Members on this group might include people such as the State Director of Fire Service Training, the State Fire Marshal or a representative from any other entity with an important role in, or influence on, fire training. It need not be a large group - five to seven "key players" should be sufficient.

This ad hoc group can get things started. At a later time they can expand into a larger, more representative, "Work Group" which will actually develop the plan. However, considerable preparation is necessary before forming the Work Group.

Review The Present Organizational Design

If the state has previously participated in the Academy Planning and Assistance Program, the structure and condition of the State Fire Education and Training System has probably already been identified and documented. Many states have done this on their own, independent of APAP involvement. In any case, planners should ensure that their organizational design document gives a clear description of the authority, responsibilities and major activities of the various organizational entities that make up the fire training and education network.

Additionally, the organizational design document should describe the inter-relationship of the entities identified in the document. The document should clearly identify the entity within the state with primary authority and responsibility for coordinating the continual development and delivery of quality fire training and education.

If the existing organizational design document is complete, current, and accurate it may be possible to move on to selecting a Work Group. The Work Group would then become involved in advanced planning steps. However, if the document is not truly descriptive of the present fire training and education system, it will need revision.

The organizational design document is a valuable planning instrument. It helps others understand how the current fire training and education system operates. The more

clearly the information is presented, the better they will understand how it works

Now is the time to make sure that there is good understanding and that all are aware of and accept the entities responsible for coordinating the planning effort.

The
organizational
design
document is a
valuable
planning
instrument.

It is suggested that states that have not previously participated in the Academy Planning and Assistance Program refer to Appendix A of this Guide for detailed information relevant to the development of an organizational design document. States reviewing their previously developed organizational design document may also want to reference Appendix A.

Develop A Planning Needs Summary

Preliminary documentation is vital to a statewide fire training and education planning effort. If an individual or group wants to mount an effort intended to impact the identification and satisfaction of statewide fire training and education needs, then there must be an acceptance of the responsibility for assembling supporting facts and materials prior to requesting widespread participation in the effort. At this preliminary point in the planning process the emphasis is not on detailed, sophisticated research and documentation — that comes later. The emphasis at this point is on initial and basic determinations. For instance, proponents of a systematic approach to statewide fire training and education will greatly enhance the chance for eventual success if a "working paper" incorporating the following elements is first developed:

- A brief description of the present fire training and education network.
- A brief description of the obvious needs and deficiencies of the current system.
- A comprehensive synopsis of alternatives that can be considered in attempting to rectify present needs or deficiencies.

- A brief analysis of anticipated costs - not for the end product but, rather, for initial development and pursuit of the idea. It is wise to ensure, in some manner, that those with approving authority are not provided the ready excuse of saying "Good idea, but too costly." An effective method of ensuring that this does not happen is to summarize all the increased benefits that will result not only from the end product, but also from the process of attaining the end product - a targeted effort within the state, multi-level involvement, pride in accomplishment and a sense of direction.

The goal... a spirit of cooperative openness.

The point of this preliminary working paper is to attract statewide participation in a focused effort. The support material and documentation suggested for development at this preliminary point helps provide the needed focus. The material developed in the initial stages of the planning effort does not need to be extensive. In most cases, a five to ten page written summary should suffice. Remember, the goal at this point is to gain conceptual agreement, and a spirit of cooperative openness. The provision of succinct background material will prove to be of significant value to others who will be involved in the planning process. Change, or sometimes just the prospect of change, can cause anxiety. The background material, developed in the preliminary stages of the planning process, can help reduce anxiety. It helps inform others of current conditions, the need for change, possible areas in which change may occur, the method by which change will take place, etc. This material also helps others to see that the planning process is being conducted professionally and in the open. Here are some hints that may be useful in the development of a working paper:

- Formally record the minutes of any meetings held by the Overseeing Committee. Do not depend on the memory of others — put it in writing.
- Appeal to the professionalism of others by maintaining principles of professionalism yourself.
- Support ideas with documentation. A good idea may not be accepted on face value alone.
- Compose the appeal of the working paper as an invitation to explore an exciting idea.

- Make minimal demands on the resources (including time) of others. You don't want to "take" time, you want to bring others to the point where they will "give" you time.
- Seek initial (conceptual) support; total support comes later. Don't handicap the project by demanding blind allegiance. Allow others the opportunity to express and discuss concerns.
- Heed the suggestions offered by others as much as possible. Make it clear that you are responsive to valid criticism.
- Anticipate the anxiety that change produces in people.

Review the Planning Authority

The
Overseeing
Committee
must have the
authority to
pursue the
project.

If no specific authority to pursue the planning project was granted by appropriate policy makers, now is the time to ensure that the Overseeing Committee has proper authority to continue its work. Just how this will be accomplished will, of course depend on the situation within the state. The working paper should present a strong, logical case supporting the need to continue the planning effort. However, regardless of how strong or logical the case for planning may be, the Overseeing Committee must at some point be invested with the authority to pursue the project further. In addition to making sure that they are authorized to operate, there are a number of other tasks that the Overseeing Committee will want to complete before calling the work group together.

Develop A Work Group Role Statement

It is vitally important that the work group know and agree on the purpose of the fire training and education planning project. The Overseeing Committee can assist in this by preparing a preliminary role statement that:

- Establishes why the group was formed.
- Defines the purpose and limits of the work group.
- Establishes operational guidelines for the work group.

When the work group first convenes, the role statement will give a sense of purpose and direction. It is advisable to review all the steps in the planning process during their initial meetings. They may choose to modify or refine the role statement to more closely fit the need as they progress. The Work Group must know what ground they are expected to cover. The role statement will help clarify that expectation.

Develop a Work Schedule

The work schedule enables the group to track progress.

Among the first items of business for the work group will be the development of a work schedule. The work schedule will enable the Work Group to track the progression of activities throughout the course of the planning project. It will show what has been done and what remains to be done.

The work schedule should be simple and realistic. In most cases it should not cover more than an eighteen month period. If too long a period is covered, it can create a false sense of time available to complete the process which, in turn, will extend the time periods for task accomplishments. Also, too long a period may result in lack of continuity in committee membership.

As time goes on, people leave the Work Group for various reasons. Replacements are often unaware of previously decided philosophies and concepts. Filling in new members consumes time and, often, throws other members off balance. A realistic work schedule that lists all there is to do and conveys both a sense of cautious urgency and thoroughness seems to be best. Identified in the work schedule should be a listing of major tasks to be accomplished, and the anticipated date for their completion. These are often referred to as project milestones. When the Work Group approves the work schedule it should be clearly understood by all members that in approving the schedule they are, in effect, obligating themselves to accomplish it. Allow for flexibility in the work schedule, but make significant modification subject to demonstrable, justifiable need — not comfort or convenience. The work schedule should also include a category listing who is responsible for what. Appendix B presents an example of a proposed work schedule.

Adopt a
"Write-As-You-
Go" policy.

Record Activities

Just as an explorer carefully and methodically records the events of an exploration, so must the events of a long-term fire training and education planning effort be methodically recorded. It is advisable to adopt a "write-as-you-go" policy. All meetings should be preceded by written agendas. The written agendas should list all issues to be deliberated at a given meeting and should provide both a "background" statement concerning each individual issue and an "action requested" statement that informs the membership of what action is desired - deliberation, resolution, appointment of responsibility, etc.

In addition to agendas, minutes of each meeting should be taken. Minutes should be distributed to all members as soon as possible after the meeting. Make sure that the minutes of both the Work Group and any sub-committees are thorough and accurate. Comprehensive agendas and minutes are important to the committee, but they are only part of a "write-as-you-go" policy. Whenever a planning task is completed, the results of the activity should be written and properly filed.

A "write-as-you-go" policy creates a well documented decision base. If, for any reason, committee action is called into question, then the committee can easily reference their action.

A good written record also enables outside reviewers, or newly assigned committee members, to trace the history of committee action.

As written committee materials are prepared, they should be systematically filed. Ideally, there will be two sets of files. One set should be an "activity" file, the other a "plan" file. In other words, one set should be a working file, the other a master file. At the end of the entire planning process, the material in the master file will be of significant assistance to the Work Group in preparing their Plan of Action.

Identify the Project Manager

Soon after the Overseeing Committee is formed, it must determine who will manage and coordinate all the activities in the planning process. It should be someone who can stick with the project. The role of this person should be to organize and guide both the committee and the Work Group through each of the planning steps.

The committee may, depending on the conditions they face, either appoint a project manager or prepare a list of candidates to be considered by the Work Group later on in the process.

In some cases, especially if resources are abundant, it may be desirable to consider hiring a professional planner. Care must be taken, however, to ensure that no one person takes over the planning process. The success of the planning effort, as well as the subsequent implementation of the plan, depends heavily on collective agreement. The value of a strong, diverse, and active planning group cannot be over-emphasized. The entire training and education network will, to some degree, be affected by the plan hammered out by the work group. It is wise, therefore, to give those who will be affected by the plan plenty of opportunity for significant involvement.

Give those
who will be
affected by
the plan an
opportunity
for
involvement.

Involve the
public.

There are people outside the fire service, private sector managers for instance, who may be quite able and willing to assist in the fire training and education planning process. Try to interest these people in sharing their knowledge and skill. Remember, the general public as well as business and industry are affected by the fire training and education system in the state. Involve these people also.

Regardless of whether or not you decide to seek the assistance of an outside professional planner, the careful selection of a seasoned project manager is a matter of utmost concern.

Rule of
Thumb: If
they have a
stake in the
outcome,
bring them
in.

Selecting the Work Group

The composition of the planning Work Group is extremely important. Not only will it be their responsibility to develop the Plan of Action, but also to see that it is accepted and implemented. If important and interested entities or individuals are overlooked, there is a likelihood that they will feel left out and, as a reaction, oppose the outcome. The rule of thumb is: If they are interested, involved, opposed or affected, bring them in. The planning group should consist of anyone or everyone who might have a stake in the outcome. At a minimum, representatives from the following should be considered:

- All state agencies with fire protection interests.
- All local, regional or statewide fire training groups, organizations, affiliations, etc.
- The state system of higher education.
- Community college or vocational technical education systems.
- Interested, or involved, private schools.
- Business and industrial concerns.
- The general public.
- Selected volunteer and career fire departments.

Obviously, the size of the group will be quite large. Look at it this way: If the planning effort results in the necessity to approach your State Legislature for additional resources, or a change in a statute, you will certainly have widespread support. Nonetheless, the size will require that all representatives have a clear grasp of their role in the planning process. "Thus the importance of some of the preliminary steps is emphasized."

The Role of the Work Group

The work group is responsible for:

Work Group
responsibilities.

- Carefully reviewing all existing fire training and education data.
- Defining the organizational and philosophical concepts which will guide the future fire training and education system.
- Establishing the goals, terminal objectives and enabling objectives of the fire training and education system.
- Considering and selecting alternative strategies for reaching the goals.
- Selecting a financial strategy.
- Ensuring a proper legislative strategy.
- Assigning implementation responsibility.

These are significant responsibilities requiring astute leadership and actively committed work group members.

Select the Work Group Leader

Leadership of the work group is a primary concern and must be decided upon during the initial stages of Work Group activity. Even if the Work Group is to be guided through the planning process by a professional planner or project manager, this person will not necessarily be the leader of the Work Group, nor will the originator of the planning effort necessarily be the leader. Because the composition of the Work Group will have, in all probability, expanded from that of the Overseeing Committee, it is likely that leadership of the Work Group will be conferred upon the member who holds, by virtue of position, the widest relevant fire service authority. For instance, if the State Fire Marshal is the chief fire training and education policy maker in the state, then leadership of the Work Group may quite logically be offered to the State Fire Marshal. In other instances, leadership may be decided by other means.

There is a difference between the person who can do the most, and the one who can get the most done.

In selecting the Work Group leader, especially if an outside professional planner has been retained, it should be remembered that the leader needed by the Work Group is not necessarily the one who can, single handedly, do the most. The leader needed is the one who can get all the members to work cooperatively and effectively toward a common end. The distinction may be subtle, but there is a difference between the person who can do the most and the one who can get the most done. It is within that subtle difference that leadership emerges.

Regardless of who is selected as leader, or how they are selected, the leader must:

- Be able to focus the efforts of the Group on specific goals and objectives.
- Be adept at gaining group consensus.
- Have sufficient time to devote to the planning project.
- Have sufficient secretarial and other support services.
- Be an effective administrator and communicator.
- Be able to minimize the effect of inevitable conflict.
- Either be familiar with long-term planning or have the ability to quickly learn the planning process.
- Coordinate the activities of the Work Group.

Provide Necessary Training

If most of the members of the original ad hoc Overseeing Committee continue as members of the planning Work Group, they can help keep the group on course. The need for proper orientation of all members is essential. Initial sessions should be devoted to gaining an understanding of:

- The present organizational design of the statewide fire service training and education network.
- Characteristics of the present fire service population.

- The current performance levels of the fire service personnel.
- The planning process to be used.
- How to participate effectively in a meeting.

Whatever the training needs, the time spent in the beginning will pay off in later sessions.

Summary

Up to this point most of your efforts will have been directed toward laying the groundwork for the actual planning process. The planning effort should now have:

- An Organizational Design document that clearly describes the entities that make up the state fire training and education network.
- A Training and Education Inventory which provides an accurate and up-to-date review of the current condition of fire training and education within the state.
- Full approval from policy makers to move ahead.
- A Working Paper explaining the need for, and benefits of, the planning effort.
- A preliminary Work Statement proposing what is to be accomplished by the Work Group.
- A planned Work Schedule for completing the planning process.
- A documentation and filing system.
- A competent planner who has agreed to serve as the Project Manager.
- A competent and trained Work Group with a skilled leader serving as Chairperson.

FIRE TRAINING AND EDUCATION

The manner in which each of the above items is accomplished will of course depend upon the conditions within each individual state. Once you have these, you are ready to move on to the actual planning process, which is presented in Chapter II.

STATEWIDE FIRE EDUCATION AND TRAINING PLANNING

Chapter 2

Introduction

The planning process presented in this guide suggests an eight-step approach to the development of a statewide fire training and education plan. These eight progressive steps call for the development of:

1. A Mission Statement.
2. Goal Statements.
3. Terminal Objectives.
4. Problem Statements.
5. Priority Solutions.
6. Enabling Objectives.
7. An Implementation Plan.
8. An Evaluation Plan.

The intent of this guide is to take you through each of the eight steps. For the sake of simplicity and clarity, each step is presented in the following format:

PRODUCT: Explains the end result or "product" to be attained by completing the outlined tasks.

CONCEPTS: Explains the key ideas necessary to understand what is to be accomplished.

TASKS: Describes the necessary activities to produce the desired product.

EXAMPLES: Provides one or more examples of the desired product.

SUMMARY: Provides an analysis or overview of the activities and concepts presented. It will also include any other information that may be helpful to the process.

While it is intended that each step be accomplished in sequential order, it may become necessary at times to back track and revise previously decided issues. For example, a strategy that may be very effective in meeting needs may turn out to be impractical because of high implementation costs.

Just how fast you will move ahead will depend to a great extent on your present situation. If you have a plan already, it may only be necessary to review each element for needed changes before moving on. If you don't already have a plan, developing one will take time. In any case, sticking to the following format should help keep the planning process on track.

STEP ONE

PRODUCT: **Mission Statement**

CONCEPTS: A mission statement is a simply stated, clearly communicated, written expression that states the purpose of a system or organization. Your present fire training and education system, or the various components within that system, may already have adopted a mission statement. If so, now is the time to carefully review its content. Whether you are reviewing an existing mission statement or adopting a statement for the first time, it is wise to ensure that it clearly defines the intended scope and function of the system.

The focus of this guide, again, is on the development of a statewide fire training and education system. A system contains many components. The components of a fire train-

ing and education system, for instance, are all the organizations that play a role in the development and delivery of fire training and education within the state. In contending with STEP ONE of the planning process you will not only develop a mission statement for the proposed fire training and education system, but also will encourage each component within the system to develop a mission statement. As all of these components should have membership on the Working Group, it is an ideal time to develop a complex of compatible mission statements. What you are trying to do is to get the parts to fit into the whole. Having each component of the fire training and education system review and state its operational scope and function will help to indicate the intended mission of the total system.

Conflict or confusion may arise when two or more organizations within the system express, via the mission statement, indistinguishable reasons for their existence. If this should happen don't be alarmed. Conflict or confusion in the mission statements may simply be pointing out that:

- They are inaccurately stated.
- There is redundancy within the system.
- There is need for more precise definition.

Now is the time to resolve over-lap, redundancy and imprecision. As you can well imagine, coaxing an organization into precision, or convincing one to modify its role can be a very difficult process. Again the value of an effective leader and a widely representative Work Group is underscored. There are several tasks listed below. These are typical tasks that must be done in order to establish a mission statement for a fire training and education system. Each component within the system should also develop, or review, its mission statement in accord with these tasks.

FIRE TRAINING AND EDUCATION

If an organization (component) within the system does not have a mission statement, performing the tasks suggested will assist the organization in establishing an appropriate mission statement. If an organization needs to develop or rework its mission statement, it should substitute the word "organization" for "system" in the tasks below. The Working Group, however, should concentrate on the development of a mission statement for the total fire training and education "system".

TASKS:

1. Brainstorm the purpose of the training and education system.
 - A. Who will be served?
 - B. What are the intended results?
2. Gain consensus on the scope and function of the system.
3. Write a clear, concise statement that describes the purpose of the fire training and education system.
4. Review the statement with legal counsel to ensure consistency with existing laws and statutory authority.
5. Formally adopt the mission statement.

EXAMPLES:

- 1) "The mission of the state fire training and education system is to organize and stimulate the implementation of a coordinated training and education system for all fire service related personnel, public or private, which will assure easy access to quality training and education experience at an acceptable cost."
- 2) "In order to establish and maintain acceptable levels of performance, it is the mission of the state fire training and education system to develop and deliver cost effective, quality training and education opportunities for publicly employed fire related personnel within the state."

SUMMARY: The first example suggests that the system will strive to "organize and stimulate" training and education for all fire personnel, "public or private." In the second example the mission is somewhat different. It suggests that the system will "develop and deliver" to only "public employees." At first look the statements appear similar. However, when key words are taken into account it becomes obvious that the proposed scope of the two missions are significantly different.

The simplicity of an appropriate mission statement may obscure both its importance and the difficulty frequently associated with composing an acceptable mission statement. A mission statement is a written expression of purpose and scope. It frequently represents the "philosophical" principles operative within the system. It is in the area of determining and defining the "philosophical" principles of the system that the Work Group will experience the most debate. In composing a mission statement the Work Group may need to consider:

- Enabling legislation.
- The political environment in which the system will function.
- Program restrictions, such as funding.
- General feasibility of the system.
- Existing philosophical and political concepts of the fire service community.

STEP TWO

PRODUCT: **Goal Statements**

CONCEPTS: Goals are general statements which describe the desired outcome of the system's mission. In terms of training and education, they generally express the target audience to be impacted and the expected performance levels to be attained. Goal statements are most often not measurable, yet set forth in general terms the expected results of the system.

FIRE TRAINING AND EDUCATION

Just as the system has goal statement, so should each organization within the system have goal statements. It is not the responsibility of the Work Group to develop goal statements for the organizations within the system. The Work Group may, however, want to review each organization's goal statements. Again, over-lapping, or redundant, goals may need to be adjusted at this point. We are not suggesting that the Work Group dictate goals to organizations within the system. We are suggesting, however, that the goals of all organizations be reviewed and, where necessary, clarified. Following are the suggested tasks for goals statement development:

- TASKS:**
1. Determine the target audiences to be served and why.
 2. Determine the performance levels to be achieved by each target audience.
 3. Write and adopt suitable goal statements.

- EXAMPLES:**
- 1) "Provide adequate training and education in basic fire fighting skills for rural fire fighters."
 - 2) "Maintain a cost-effective training system for E.M.S. personnel that will assure an adequate supply of trained personnel."

SUMMARY: Care should be taken that goal statements set forth the desired outcome in terms of the system's mission. If the mission is to "make quality training available," then goals should state "how available it will be," not "how it will be delivered."

A common error in setting forth goals is to suggest "solutions" rather than desired "outcomes." As an example, a statement suggesting a central state training facility may be an excellent solution but would not be a goal in terms of the availability of quality training.

A goal is a general statement describing what the system is intended to accomplish. Goals should be consistent with a system's, or organization's mission statement. While they are not specifically measurable, goal statements are, nonetheless, realistic expressions of desirable results.

STEP THREE

PRODUCT: **Terminal Objectives**

CONCEPTS: Terminal objectives establish the degree to which each goal will be attained. Not only do they specify the level to which goals will be accomplished on a continuing basis, they also specify what will not be accomplished. As an example, by clarifying that 80% of a typical target audience will be trained to a specific performance level, it is therefore implied that 20% will not necessarily be trained.

A key factor in developing terminal objectives is the identification of suitable tools to measure expected goal performance. Local or national certification standards can serve as "quantifiers" in setting expected performance results for targeted audiences.

- TASKS:**
1. Identify measurable quantifiers of expected performance for each goal.
 2. Establish attainable performance measurements for each goal.
 3. Write terminal objective statements to define the expected performance of each targeted audience in the goal statement.

EXAMPLES: Terminal objectives are best understood in direct relation to goal statements. Therefore, if the established goal is "to provide adequate training and education in basic fire fighting skills for rural fire fighters," acceptable terminal objectives could be expressed as follows:

- 1) "Maintain and deliver a basic Fire Fighter I training course available to all fire fighters serving population areas of less than 10,000 people."

- 2) "Maintain participation in basic fire fighter training programs at a level capable of assuring that 80% of all fire fighters serving population areas of less than 10,000 people are certified at or above the Fire Fighter I level."

SUMMARY: Terminal objectives establish to what extent goals will be met and, thereby, also imply what will not be done. Remember, goal statements represent what the system is intended to accomplish; terminal objectives quantify goal statements in that they define the acceptable level of goal performance.

STEP FOUR

PRODUCT: **List of Problem Statements**

CONCEPTS: A problem may be defined as the difference between the present situation and the desired situation. As noted earlier, the desired situation is set forth in the goals and terminal objectives. The present situation is determined by analyzing what actually exists. As an example, if a goal sets forth a desired performance level for rural fire personnel, then rural fire personnel will need to be tested, or somehow evaluated, to measure their present performance abilities in comparison to the desired standard. If their performance capabilities are less than the desired level, a problem exists. Of course, not all problems relate to the expected results.

Cost of operation may also be a problem, notwithstanding the fact that all desired results are being accomplished. Cost of operation may simply be too high. In other words, the system may be "effective" but not necessarily "efficient." A close review of how the system currently functions may bring to light more cost effective ways to bring about the same or better results.

Again, a common error is to list causal factors as problems. When identifying problems, the focus should be on the deficiencies in desired results as expressed in the goal statements and terminal objectives. For example, lack of proper training facilities may be a causal factor as to why a problem exists in performance levels of fire personnel in rural areas. As a result, improved training facilities may emerge as the solution for improving performance in rural areas. Care must be taken to assure that causal factors are not set forth as the root deficiencies, or other suitable alternatives may not be considered as solutions.

- TASKS:**
1. In relation to each goal statement and terminal objective, review the present performance situation.
 2. Define the difference(s) between where the system is and where you want it to be as specified in the terminal objectives.
 3. Review the system's organizational design, and operations for efficiency and impact on desired results.
 4. Clearly express all problems in statements that include:
 - A. What is deficient.
 - B. Where it is deficient.
 - C. To what degree it is deficient.
 5. Rank problem statements in terms of feasibility for solution and potential impact on desired results.
 6. Select the problem statements of highest priority.

- EXAMPLES:**
- If Terminal Objective Example 2 is used (see page 23), it may be discovered that the desired performance standard of "80%" is in fact being attained only by 20%. Then an appropriate problem statement would be:

"In population areas of less than 10,000 only 20% of the fire fighters are certified at or above the Fire Fighter I level."

High cost of operation can be an inherent problem in the system. As an example, the system may be meeting every performance measurement, yet the cost may be excessive. Problems involving cost of operations should also be stated precisely, for example:

"The cost of delivering rural fire fighter training is 35% higher than current year budget estimates."

SUMMARY:

Drafting problem statements is a vital part of the planning process. Problem statements are precise expressions of the difference between where a system is and where it wants to be. Remember, before you can adequately solve a problem you must first know, and clearly state, what the problem is.

In this phase of the planning process the Work Group may need to rely heavily on sub-committees. Also, during this phase, they will be deeply involved in data acquisition and analysis. In other words, it is very important to substantiate the existence of problems within the fire training and education network. For instance, if you state that "only 20% of rural fire fighters are certified at the Fire Fighter I level," you must be prepared to demonstrate how you arrived at that conclusion. Among the best ways to substantiate the existence of a problem is to conduct valid research and create an appropriate data-base for each cited problem. If you can clearly demonstrate the existence of a problem, you are quite likely to receive more cooperation in finding a solution.

STEP FIVE

PRODUCT: **Ranked Listing of Solutions**

CONCEPTS: Solutions are methods of resolving problems. For any given problem within a fire training and education system there

are probably multiple possible solutions. The focus of this step of the planning process is on finding the most appropriate solution for an identified problem. In other words, the selected solution for any given problem should be the solution that is most efficient, most practical and most capable of directly impacting the problem and accomplishing the terminal objectives.

Each problem should be reviewed and thoroughly discussed. All causal factors contributing to the problem should be identified, and all appropriate data assembled. This type of brainstorming is a very good method of analyzing and defining a problem.

Once all causal factors have been listed, they can be grouped into target sets. Some, for instance, may relate to lack of instructors. Some may be organizational factors. Whatever the causes, once they have been clearly identified and grouped into target sets, possible solutions may begin to emerge.

The solutions for some problems will have higher priority for implementation, because of their potential impact. When solutions are ranked, then resources, which are always limited, can be allocated to those solutions with the greatest potential for achieving the goals of the system.

TASKS:

1. Review each problem statement for causal factors.
2. Group all identified causal factors into target sets.
3. Consider alternative solutions for each target set.
4. Through consensus, select the solution that is thought to hold the greatest potential for solving the problem.
5. Agree on solutions to be pursued.

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EXAMPLE:

Problem: "In population areas of less than 10,000, only 20% of the fire fighters are certified at or above the Fire Fighter I level."

Causal Factors: Target Set I - Lack of Local Interest

1. Lack of interest in training.
2. Poor communications between departments.
3. Lack of awareness of training opportunities.
4. Lack of coordination.

Target Set II - Lack of Resources

1. Lack of common training guide.
2. Lack of quality audio-visual aids.
3. Lack of qualified instructors.
4. No travel money available to attend the state academy.

Solutions: Target Set I - Lack of Local Interest

1. Regional training committees to coordinate and stimulate fire personnel training.

Target Set II - Lack of Resources

1. A basic fire fighter training course.
2. Improved local capabilities.
3. Readily available audio-visual resources.

SUMMARY: Solutions are methods of resolving identified problems. For any given problem within a fire training and education system there are probably multiple solutions. The focus of this step is on gaining the consensus of the Work Group regarding the "best" solution for stated problems. You should expect and allow for, much debate regarding the selection of the most effective solution.

Brainstorming, based on all known information about a problem, is an effective method of problem solving. Brainstorming will help you avoid the common pitfall of assuming that there is only one solution to a given problem. It also provides a good opportunity for group participation.

STEP SIX

PRODUCT: **Enabling Objective Statements**

CONCEPTS: Enabling objectives state in measurable terms how the terminal objectives will be reached. Enabling objectives specify time, quantity and quality. They call for specific action, by a specific time, in a specific manner, for a specific purpose.

- TASKS:**
1. Determine the desired quantity of the intended product or the action to be taken.
 2. Determine the desired quality of the intended product or action to be taken.
 3. Establish a completion date for implementation.
 4. Adopt an enabling objective statement for each proposed solution incorporating the elements of quantity, quality and time.

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5. Develop a list of all proposed enabling objectives set in rank order based upon expected impact and cost of implementation.
6. Identify who will be responsible to see that the objective will be carried out.

EXAMPLES: 1) By January 1, 19—, establish a Regional Training Committee in each of the state's administrative districts to coordinate and stimulate quality training for fire fighters in population areas of less than 10,000 people.

Responsibility: State Fire Marshal.

- 2) By July 1, 19—, develop and publish a basic fire fighter training course, including appropriate visual aids suitable for delivery to fire fighters in rural areas.

Responsibility: State Director of Fire Services Training.

- 3) By January 1, 19—, establish a local training-aid resource center in each of the state's administrative districts.

Responsibility: State Director of Fire Services Training.

- 4) By January 1, 19—, develop and implement an instructor training system that will, within three years, provide at least one certified Instructor I for every 10 fire fighters in each administrative district throughout the state.

Responsibility: Community College Fire Science Coordinators.

SUMMARY: When Enabling Objectives are written, it often becomes apparent that many problems are interrelated and have common causes. One causal factor may contribute toward a number of problems. Conversely, one solution may serve to solve a number of problems.

In considering problems, care should be taken to group them into related categories. In this way it will be easier to sort out interrelated causes and solutions.

Enabling Objectives should not be confused with Terminal Objectives. Terminal Objectives actually set performance standards for goals or establish "where we want to be." Enabling Objectives set forth "what we will do to get there."

Establishing responsibility is another important issue. Some person or organization should be identified as the entity responsible, or accountable, for seeing that the objective is carried out. The agreed upon responsible entity should be identified in the planning document and should, of course, be a willing participant.

STEP SEVEN

PRODUCT: **Implementation Plan**

CONCEPTS: The Work Group has now reached a point where the actual "plan" can be assembled. The Mission, Goals, Terminal Objectives and Enabling Objectives should be clearly defined. Any needed changes in the present organizational design should have been clarified. The focus of this step, step seven, should be to unify all the elements of the plan into an organized document.

The actual format of the planning document may use the following outline as a guide:

1. Preface: A section intended to set forth how the planning process came about.
2. Letter of Agreement: A letter of acceptance, signed by all who participated on the Work Group, approving the content of the document as the consensus of the group.

3. Table of Contents: Self explanatory.
4. Introduction: A few pages to introduce the document, and to explain its purpose and use.
5. Executive Summary: If the document is long or complicated, a two to three page summary can be helpful.
6. Organizational Design: An explanation as to how the system is either presently structured or how it should be structured. An organizational chart is helpful.
7. Mission, Goals, and Terminal Objectives: Again, the statements may be listed as they are now, as they are proposed to be, or both. This should be coordinated with the Enabling Objectives to clearly show the intended results.
8. Problem Statements: Presents priority deficiencies in the system along with a brief explanation of why these are priority problems.
9. Enabling Objectives: A section containing specific recommendations for improving deficiencies within the system. This section should cite the rationale for the objective, and should identify the person or organization responsible for implementing the objective.
10. Financial Plan: A section intended to identify current and additional resources that will be necessary to carry out each recommendation. This section discusses how these resources will be provided, by whom, when, etc.
11. Legislative Plan: This should list any necessary changes in current laws or regulations, and should include a strategy for making the changes.

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12. Summary: Re-emphasizes important issues and projects what will occur in the future.
13. Appendix: Includes relevant material that may help the reader, such as a glossary of terms.

TASKS:

1. Assemble all completed elements.
 - A. Mission Statement.
 - B. Goal Statements.
 - C. Terminal Objectives.
 - D. Problem Statements.
 - E. Enabling Objectives.
2. Clarify organizational design and system concepts.
3. Develop a Financial Plan.
4. Develop a Legislative Plan.
5. Assign overall Plan Responsibility.
6. Write the Plan.
7. Formally adopt the Plan.

EXAMPLES:

Just how an implementation plan will be assembled will depend to a great extent on the state's current management system. The format set forth above can serve as a guide.

An effective way of presenting enabling objectives is to list the objective, provide the rationale for the objective and include a statement about funding and legislative action needed to accomplish the objective.

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Enabling Objective #1:

"It is recommended that a new student dormitory with a capacity of at least 50 students be erected at the present state fire training school by January 1, 19--."

Rationale:

Student participation in instructor and technical courses has dropped to 50% below that necessary to maintain acceptable performance levels of training officers and specialty skills in cities below 100,000 population.

A survey of targeted students revealed the primary reason for lack of attendance was the high cost of per diem and housing expenses. A study was also made of three other alternatives for reducing costs including: (1) Private contracts with adjoining motels, (2) portable dormitories, and (3) moving the academy courses to regional sites within fire department facilities.

The construction of the State Fire School dormitory will provide the most conducive learning environment for the least cost.

Funding:

It is recommended that the dormitory be funded through state fire insurance premium taxes and student user fees. The actual cost ratios should be determined by the state legislature.

Legislative Changes Needed:

As the State Director of Fire Training presently has authority to operate a central state fire training school (reference state statute) no change is required in existing state laws.

Responsibility:

The State Director of Fire Training has accepted responsibility to pursue the accomplishment of this task through cooperation with the State General Services Division and other appropriate fire service organizations.

SUMMARY:

As you can see, the above sets forth what is to happen and who is to carry it out, but does not get into detailed issues. The details can be worked out at appropriate levels at a later time. At this point the focus is on preparing a written implementation plan. This is the time to double check the accuracy and consistency of all previous work. The Work Group is near the end of the planning process. Once they complete the remaining step of determining how the fire training and education system will be evaluated, they are ready to publish a long-term plan of action. If a "write-as-you-go" policy was adopted and maintained, the committee will have ready access to the information necessary to write a comprehensive plan.

STEP EIGHT

PRODUCT:

Evaluation Plan

CONCEPTS:

If the enabling objectives and implementation plan are clear and concise, the evaluation process should not be overly difficult. There are two areas of performance that you will want to track:

Process Evaluation: This is to assure that each recommendation is carried out as outlined. If some entity or person has responsibility to develop a basic fire fighting training program it will be important to periodically check at important "milestones" to see that the effort is on schedule.

Product Evaluation: This measures the extent to which an Enabling Objective has influenced the desired result.

EXAMPLE:

Enabling Objective #1:

"It is recommended that a new student dormitory with a capacity of at least 50 students be erected at the present state fire training school by January 1, 19--."

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PROCESS EVALUATION

<u>Milestone</u>	<u>Date of Completion</u>
1. Preliminary construction plan developed and approved by G.S.A.	July 1, 19—
2. Financial plan developed and approved by Work Group	October 1, 19—
3. Approval by legislature	July 1, 19—
4. Bid offered and accepted	January 1, 19—
5. Construction in process	May 15, 19—
6. Dormitory ready for occupancy	January 1, 19—

PRODUCT EVALUATION

<u>Milestone</u>	<u>Evaluation Date</u>
1. Student participation in academy program before and after construction of dormitory	Annually

BASE DATA

	<u>Year</u>	<u>Training Officers</u>	<u>Fire Officers</u>
Before Construction	1984	10	48
	1985	10	52
	1986	8	49
	1987	6	35
After Construction	1988	14	62
	1989	34	122
	1990	42	188

TASKS: Process Evaluation:

1. Review each Enabling Objective for the key elements in its implementation sequence.
2. Establish evaluation milestones for each key element.
3. Establish Work Group meeting dates based upon evaluation milestones.

Product Evaluation:

1. Review each Enabling Objective for intended impact on a Terminal Objective.
2. Determine the measurements to be used to evaluate the expected results.
3. Establish the data to be used as the base for future measurements.
4. Set dates for comparing future results with the established base data.
5. Determine effectiveness of the Enabling Objectives.

SUMMARY: It is very important that all participants in the plan, and especially those that have implementation responsibilities, expect and agree to continue to meet and review progress on a periodic basis. Perhaps one of the weakest points in the planning process is the lack of follow-up evaluation to be sure things get done. Where the expected results are clearly articulated, evaluation is much easier.

SUMMARY

Chapter 2 introduced eight planning steps leading to the development of a long-term fire training and education plan of action. The intent of this summary is to offer some thoughts about putting the plan of action into operation.

The diversity of fire service organizations, throughout the country, has already been established. Therefore, it can be expected that the organizational design documents, as well as long-term fire training and education plans, will vary remarkably from state to state. How plans will be implemented will also vary. There are, nonetheless, characteristics common to states where long-term plans have been successfully implemented and accomplished.

The process suggested in this guide continually cites the need for:

- Commitment
- A cooperative spirit
- Participative decision making
- Assigning responsibility
- Responding to accountability
- Documentation
- Openness
- Flexibility
- Thoroughness and precision
- Comprehensive evaluation

These are the characteristics that will lead a state to success in its planning effort. They are also the characteristics that will lead to success in implementing a long-term fire training and education plan. The point is: The same energy brought to the planning effort must be brought to the implementation effort.

The value of a plan is established by successful implementation. A plan on the shelf is better than no plan at all, but still falls short of the ultimate goal, which is to apply the plan and produce improvements. Any fire organization capable of dealing with the method suggested in this guide is capable of successfully implementing their plan of action. All the information necessary to improve a state's fire training and education system should emerge from the planning effort. One last thing: The plan you develop is going to bring you into the future; treat it with care and concern. Adjust it when it needs adjustment, change it when it needs to be changed. A map is not a place, a plan is not an end.

APPENDIX

FIRE TRAINING AND EDUCATION

APPENDIX A

Statewide Organizational Design

The organizational design document for a statewide fire training and education system is intended to describe the network, or system, through which fire training and education is developed and provided. At a minimum the document should include:

- A description of the responsibilities, and major activities, of each of the organizational entities that make up the training and education network;
- A clarification of the relationships that exist among the various entities;
- An identification of the entity within the state responsible for coordinating the continuous development of improved fire training and education.

For developing a statewide organizational design, be careful to include every organization actively engaged in the training and education of fire personnel within the state. The statewide organizational design document should not only reflect the various responsibilities and roles of fire service, and other organizations within the state, it should also provide clear rationale for continual coordination and cooperation.

The Organizational Design will include universities, colleges and community colleges, vocational technical schools and other educational or training organizations - whether local, regional, state, federal or private - involved in the professional or career development of fire service personnel or others engaged in fire prevention and control activities within the state. It will involve all levels of fire service training - basic, in-service and specialized; and it will involve the various levels of educational offerings - non-credit, accredited and degree programs. The design should also inventory the responsibility, authority and functions of state agencies having fire prevention and control missions. These agencies may be a resource, a recipient, or have responsibility in fire education and training.

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Finally, it will involve those officials, organizations or agencies having responsibilities for setting entrance and promotional standards, certification or accreditation, testing or evaluation, and the planning and/or coordination of improvements in fire education and training throughout the state.

The Statewide Organizational Design, both in its development and as a finished document, should be the result of a cooperative effort by representatives of these various entities.

Among those who should have a representative voice in determining the Statewide Organizational Design and in defining major responsibilities are:

- Representatives of the fire service profession - both career and volunteer;
- Labor and management;
- Fire prevention representatives;
- Representatives of the university, college and community college system;
- Representatives of vocational technical education programs;
- Representatives of state and local governments - urban areas of the state as well as rural;
- Representatives from the general citizenry and other appropriate private organizations such as the insurance industry, or public agencies such as civil service and community development.

The Statewide Organizational Design, as a finished document, will contain four major parts:

1. **General** - identifying and describing the fire education and training network as it exists throughout the state, making policy statements and establishing general goals regarding the system and its improvement.
2. **Physical Design of the System** - including a clear definition of all the components of the system, their major responsibilities and an organizational chart depicting the interrelationships of the various entities of the statewide fire education and training network.

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3. **Detailed Description of the Components** - stating in more specific terms the major responsibilities, the roles and the major functions and activities of each of the components of the statewide fire education and training network.

4. **Planning Entity and Advisory Group** - identifying a planning entity within the state responsible for coordinating the development and production of the Statewide Fire Education and Training Plan. This planning entity must be responsive to the various organizations, agencies and interest groups expected to participate in or be affected by the plan. These groups may be included as an integral part of the planning entity itself or they may function collectively in the form of a special advisory group.

Statewide Fire Education and Training Inventory

The development of a comprehensive plan for improving fire education and training throughout the state should result in a planning document which includes an accurate and up-to-date review of the existing situation. It should be an assessment from a statewide perspective of the education and training network and its delivery system to determine in what areas, both programmatic and geographic, it is adequate and more importantly where it is not adequate.

The Statewide Fire Education and Training Inventory should include a general information section and an accurate and up-to-date description of the existing fire education and training system.

General Overview

This is a general information section and should cover the following areas:

1. The state's population distribution, with emphasis on major urban and metropolitan areas.

2. An accurate description of the fire safety population throughout the state - by personnel and department - whether municipal, county, regional, state, federal, special or private. What percentage is paid personnel? What percentage is volunteer?

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3. A summary of state legislation and local standards affecting recruitment, training, promotion, career development of fire service personnel.

4. A summary of student subsidies and other sources of student aid programs being utilized by fire safety personnel.

Existing Situation

This section will present an accurate and up-to-date description of fire education and training programs currently active in the state.

This constitutes a comprehensive "where we are" statement. It should cover the following:

1. The level and scope of non-degree "entry" training for fire service personnel throughout the state:
 - A. How is basic training being provided: By individual departments? By region? By state? By others?

 - B. What are the minimum basic training requirements for the various levels of fire safety personnel (fire fighters, public education specialists, inspectors, investigators, etc.)

 - C. Are there statewide standards in this area? Are they mandatory or voluntary? To whom do they apply? Are standards being adequately met throughout the state? Who adopts them?

 - D. What kind of post-training testing or evaluation of trained personnel is being done?

 - E. Is there a statewide system of certification or accreditation?

2. The level and scope of non-degree "in-service" training for fire service personnel throughout the state - address the same questions asked above on the status of non-degree entry training.

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3. Educational Offerings for Fire Service Personnel - Describe the course offerings for credit and degree programs directly related to fire administration or fire technology currently being offered throughout the state at university, college, junior college and community college levels. How many fire personnel annually enroll in these various courses? How many graduates?
4. Fire Related Education for Others - Describe generally what other fire related training and/or education programs, whether for credit or not, are currently available for other than fire safety personnel such as architects, city planners, building inspectors, code officials, interior decorators, public safety and health officials.
5. National Priority Programs - Describe the current status of education and training programs being provided throughout the state in the following program areas:
 - A. Public Fire Safety Education
 - B. Administration and Management of Fire Services
 - C. Inspection, Code Enforcement
 - D. Building Design
 - E. Fire and Arson Investigation
 - F. Fire Protection and Master Planning
 - G. Data Collection and Analysis

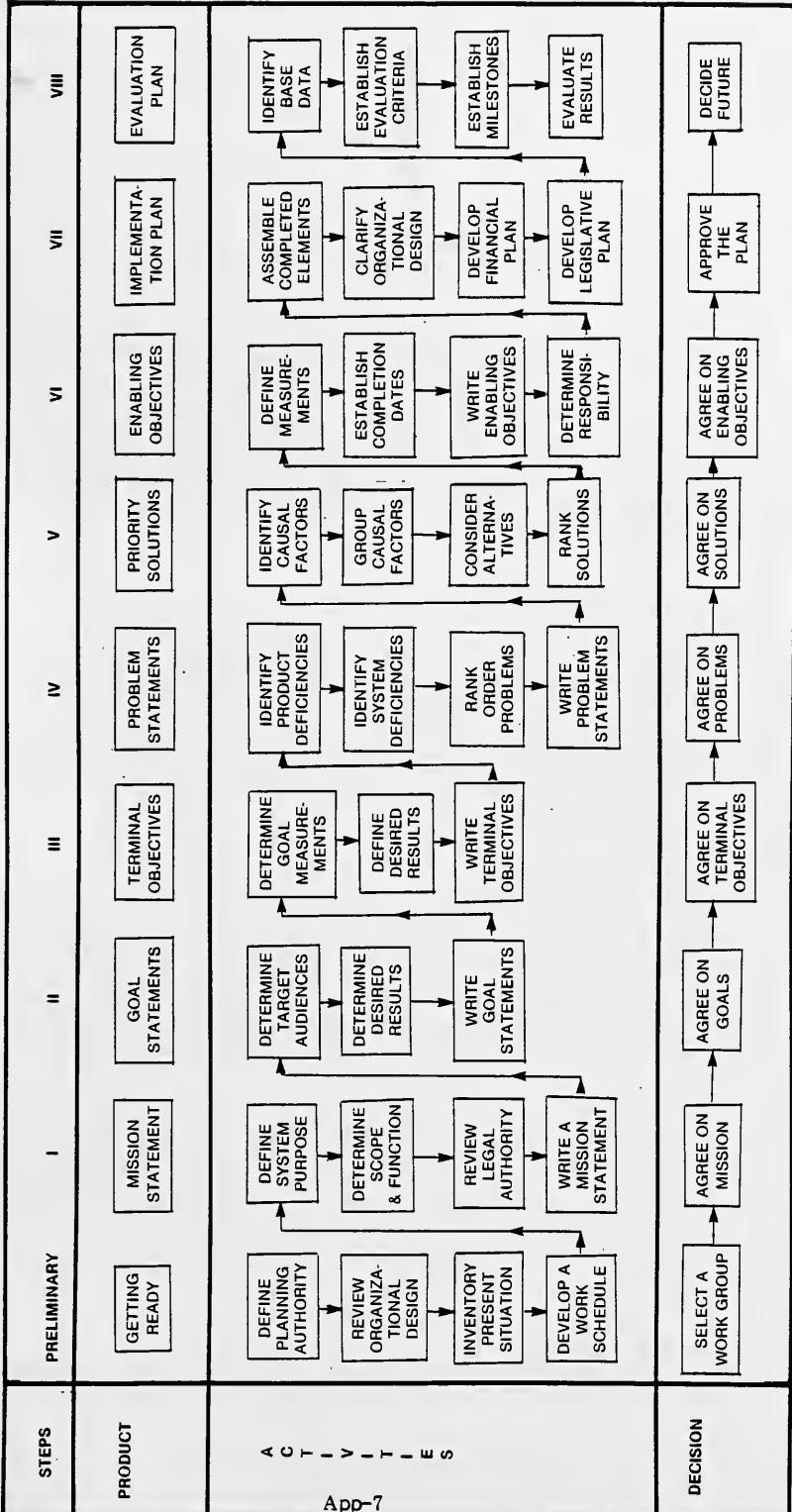
The more readily available accurate and comprehensive information describing the present fire training and education system is, the easier it will be to identify problem areas, in terms of effectiveness as well as efficiency. Of course, just how much effort will be expended to gain information will depend upon available resources. However, whatever can be accumulated, no matter how meager, will surely be of help to the Work Group as they review the system and make recommendations for improvement.

FIRE EDUCATION AND TRAINING PLANNING

TYPICAL WORK SCHEDULE

APPENDIX B

Fire Education and Training Planning Process



APPENDIX C

**Typical
Fire Personnel Education and Training
Delivery Concepts**

The following concepts are briefly set forth so that planners will be aware of the variety of delivery modes used by various state training and education systems. The description of each concept is, by necessity, brief. More information can be obtained by contacting the National Fire Academy Planning and Assistance Program Branch of the Field Programs Division. Academy Field Program Staff can provide a great deal of on-the-spot information about each of these concepts. They can also refer inquiries to personnel within various state systems who are experienced in applying these various concepts.

Annual Fire Schools

Many states through a variety of delivery concepts conduct an annual fire school. They generally are scheduled to run from three days to two weeks and present virtually every level of training from basic and technical skills to management theory. The annual fire school concept has a tendency to build a traditional aura which stimulates attendance and participation over the years. It also provides an opportunity for fire personnel to discuss common problems and exchange ideas in addition to the curriculum presented as scheduled classes.

Audio-Visual Aid Centers

Lack of readily available teaching aids can be a significant inhibitor of quality local training even when a sufficient number of trained instructors are available. Many states have central state resource centers where a comprehensive library of books, slides, video tapes, films and other resources are loaned to departments and trained instructors upon request. In some cases fees are charged to handle replacement, repairs and/or postage.

In a few larger states a number of centers are located in desirable geographic locations to afford easier access to local users. In most cases they are located in local colleges or fire departments so storage, maintenance and check-out costs can be shared.

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Centralized State Fire Academy

The concept of a centralized state fire training and education academy has been successfully implemented in many states. A centralized academy can offer a wide variety of fire training and education courses and experiences. Centralized academies tend to be more cost effective in geographically smaller states. Volunteer fire personnel, however, sometimes find travel to a centralized site inconvenient. Student per diem costs need to be considered.

In some cases, the central academy is located and incorporated within the framework of a college or university. This provides the benefit of cooperative use of facilities, though some specialized needs may still be required. Also, central facilities can serve as the nucleus for planning, organizing and stimulating improved fire education and training opportunities.

Degree Programs

In recent years numerous degree programs have been initiated and, where fire personnel populations are concentrated, they tend to have excellent participation. The Associate Degree in Fire Sciences or Technology is of course the most prevalent. However, some states offer baccalaureate degrees in fire engineering or fire services administration. A wide variety of formats are used to accomplish the four-year degree. In most cases the associate degree serves as the base or prerequisite for the advanced degree.

The upper division curriculum is generally composed of general studies similar to other degrees, and include a professional core of about 21 to 35 quarter credit hours. An advantage of the baccalaureate degree is that it provides an avenue for fire personnel aspiring to be fire administrators to pursue advanced education and yet focus on the specifics of fire protection.

In some instances the professional core subjects are offered in one-week institutes. This arrangement allows access to students who have long travel distances and allows them to concentrate their studies into a short period of time.

The National Fire Academy through an arrangement with eight universities and colleges also offers upper-level college courses through an outreach program administered by the International Association of Fire Fighters. Many college requirements can be accomplished through this Open-Learning for the Fire Service Program without actually attending a college campus.

National Fire Academy

Education and Training Grants and Student Stipends

Some states are offering financial assistance to state and local organizations for the delivery of fire training. In many cases, these groups, through volunteer help, can be more productive with limited resources than if the state were to pay for the total program. The assistance offered ranges from one-time grants to actual contracts in virtually every level of performance and discipline.

Emergency Management Institute (E.M.I.)

The goal of the Emergency Management Institute (E.M.I.) is to improve emergency management practices in communities throughout the United States. It therefore serves the emergency training needs of local, state and federal officials, managers in the private economic sector, professional and volunteer organizations, and the general public.

Training activities, which consist of courses, workshops, seminars and conferences, are conducted throughout the United States. The E.M.I. develops courses and administers resident and non-resident training programs. A majority of the training is conducted by State emergency management agencies under cooperative agreements that offer both financial and technical assistance, as well as instructional materials.

Furthermore, the E.M.I. responds to training interests of non-profit organizations by providing instructional materials and student allocations in selected course offerings. Included in this outreach program are public and private schools, colleges and universities, volunteer agencies, and professional associations.

Instructor Cadres

Many states depend on a resource pool of part-time instructors to meet their fire training and education needs. Many of these instructors are drawn from fire departments throughout the state. Other instructors in the pool come from a wide variety of disciplines outside the fire service such as local and state governments, or colleges within the state. These instructors are usually paid an hourly rate or a set honorarium. Broadening the base of available instructors also broadens the base of available courses and subject areas. One of the problems associated with this concept is the over use of good instructors. Coordination of an instructor cadre requires skill. In some cases regional coordinators are employed on a full or part-time basis to coordinate local instructional activities and to provide a support base for the instructor cadre.

National Fire Academy

Management Development Institutes

Some theories suggest that if the top managers, chief officers and above, were appropriately trained in management skills, other training and education problems would soon be solved. In any case, several states schedule periodic and sequential institutes that take top managers through a series of educational experiences over a period of one or two years. The subjects presented include organization of fire protection, risk analysis, personnel management, fiscal management, legal aspects, and planning. At least one state pays all tuition and per diem costs for officers that enroll for the series. The institutes generally last about one week and are scheduled about every quarter year.

Mobile Training Vehicles

The need to "take the training to the student" perhaps inspired the use of mobile training vehicles. They range from station wagons stocked with audio-visual resources to semi-vans with hands-on equipment. The varieties in use include almost every conceivable form of training need, including:

- Operational Sprinkler and Detection Systems.
- Portable Training Towers.
- L.P. and Natural Gas Systems.
- Classrooms.
- Flammable Liquid Fire Training Props.
- Fire Ground Tactical Simulators.
- Pump Operation Simulators.
- Burn-to-Learn Systems.
- Breathing Apparatus Cascade Systems.
- Audio-Visual Aid Equipment.

Model Training Guides

The development and maintenance of quality student and instructor guides can be costly. Duplication of individual efforts to develop similar instruction aids can contribute to this cost. Model programs are developed on a state basis and made available upon request. In this way they can be revised to meet local needs with much less effort. A number of private and public organizations, the National Audio Visual Center for instance, offer model guides for sale at reasonable costs. In more recent years, these guides have been based upon the standards for fire personnel established by the National Professional Qualifications Board.

National Emergency Training Center (N.E.T.C.)

The National Emergency Training Center (N.E.T.C.) is the home of the U.S. Fire Administration, the National Fire Academy, the Emergency Management Institute, and the Senior Executive Policy Center. Established in 1981, it reflects the importance F.E.M.A. places on training in the field of emergency management. Moreover, its existence carries the connotation of a fundamentally different approach to emergency management than previously existed. The many hazards that cause emergencies are no longer viewed as separate entities with no connection and with different management responses. Instead, emergencies are viewed as events demanding an articulated public service response, for the objective is the same whatever the cause of the emergency may be - saving lives and property, and preserving social and economic stability. As this new approach matures, the field of study and professional training in applied emergency management is taking shape. Today, the N.E.T.C. reflects the leading edge of this developing field of study.

National Fire Academy (N.F.A.)

The National Fire Academy is the national focal point for fire prevention and control training. It provides volunteer and career fire service professionals access to the most recent advances in technology and management perspectives. The Academy also offers training for allied professions - code enforcement, architecture, city management and administration, planning, and medical services. Curricula are continually improved and expanded to meet national priorities through systematic research, analysis of student critiques, and consultation with leaders in fire service organizations.

The Academy offers resident and field training courses in fire service technology, fire incident management, fire prevention and risk management, and fire service organizational management.

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An out-reach program is administered by the Academy that is delivered by State and local fire training agency staff with support of Academy adjunct faculty. Courses are conducted in every State, primarily on weekends, to allow maximum opportunity for volunteer fire personnel. The Academy Planning and Assistance Program (A.P.A.P.) is a financial and technical assistance program designed to encourage States to develop comprehensive fire-related training and education plans. An Open University Program, which is a self-directed, independent study program, is delivered by nine nationally recognized colleges and universities.

Professional Organizations

In recent years both state and national professional organizations have assumed a much broader role in fire service training. In a number of states these organizations deliver specialized training related to their specific discipline. As examples: Instructor organizations deliver instructional technique training, fire investigator organizations deliver investigative skills training, and chief officer organizations deliver management skills training. Because the organization has within itself a reservoir of knowledgeable professionals and because of the potential to supplement revenue from dues, these organizations are prepared, and likely will continue to carry a role in the total state system.

Recruit Training Academies

The training of recruit fire personnel can be burdensome to smaller departments. In areas where an accumulation of recruits from several or more departments require basic training, recruit training academies have been used. These can be located in fire departments. In some cases community colleges, or other appropriate community facilities, may be used. This cooperative approach has been productive where the accumulation of recruits is ten or more.

Regional Training Organizations

The diversity between different geographic and demographic areas has brought about the need for considerable diversity in the content and method of meeting local needs. Also, in many instances, diminishing resources at the state level have forced curtailment of long-standing state delivered programs. In an effort to stimulate increased interest and capacity at the local level, some states have initiated regional advisory groups to serve as a local entity and planning group to identify and resolve local needs.

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The role of these advisory groups vary but generally include organizing, planning, stimulating participation, and sometimes actual delivery. They have also served as a recipient of grants and student stipends in cooperation with state functions. As a central focus for local entities, they can serve as an acceptable coordination and stimulation force. In a two-way advisory relationship with the state training system they can build acceptance and support.

Regionalized Fire Training Facilities

Regionalized fire training facilities are used in some states. Regionalized facilities have the advantage of cutting travel distances for students. They can also specialize in meeting regional or local training needs. Regional facilities can be integrated with local facilities in order to gain the cost benefit of multiple use facilities.

Resource Exchange Systems

Statewide resource exchange systems have been organized through a central clearing house concept. All fire education and training resources that are available for loan are inventoried and listed in a catalog. In this way instructors may use resources from other agencies or fire departments at a low rental fee or sometimes without direct cost. This interchange of resources can help to avoid costly duplication of items that may be seldom used yet readily available from a nearby agency.

Satellite Telecommunication Systems

It is of course too early to project just what impact satellite communications will have on fire service training in the future. However, it is certain to be significant. The recent entry of the National Fire Protection Association and the Federal Emergency Management Agency into two-way satellite telecommunication educational programs provides an excellent opportunity to observe its versatility and capability to respond to very large audiences in a cost-effective manner.

Also, many larger departments are now using two-way video communication systems to deliver training and to communicate with a large number of remote stations. In some cases satellite systems are used - in others leased or department owned telephone wires make the connection. In any case, the systems are proving to be effective and provide virtually unlimited flexibility for use in the delivery of statewide programs.

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Standards and Certification

Professional standards for performance, and recognition for achieving the standards, are significant stimulators for improved performance. Numerous states have either developed and adopted their own standards and certification system or that of the Joint Council of Fire Service Organizations (JCNFSO) Professional Qualifications Board.

In a few cases, voluntary certification standards have been established for training courses and department training programs. The standards can serve as a guide for organizing training as well as an evaluation tool to measure impact of programs.

Technical Assistance Programs

With the intent of building a peer group support system for fire department administrators, a few states have initiated technical assistance programs. These programs will provide a department with help in solving local problems upon request from the chief. Usually the technical consultants are specialists from other departments within the state who are either suggested by the chief or agreed upon with the state agency. As an example, a three member team may be sent to a city where a new manufacturing complex is to be built to assist the chief in projecting fire protection needs. Another common use of technical assistance is in assessing fire personnel promotion candidates.

U.S. Fire Administration (U.S.F.A.)

The mission of the U.S. Fire Administration is to carry out programs of prevention and control that will lead to a significant reduction in fire-related death, injury and property loss. Program activities focus on fire prevention and arson control, federal policy development and coordination with the private sector, firefighter health and safety, and fire incident data collection and analysis.

The fire prevention and arson control program includes a bold, new initiative called the "Community Volunteer Program" that unites government and private sector resources to reduce the threat of fire, an Arson Information Management System (A.I.M.S.), a juvenile firesetters program, an arson resource center, and the use of computer and satellite teleconferencing for information exchange. Research, development, and technical information is disseminated to the nation's fire protection management under the federal policy and coordination program. The firefighter health and safety program sponsors research and development of protective clothing, tools, and equipment. Information is also provided on improving firefighters' physical fitness, and measuring and monitoring the state of firefighters health. A fire data and analysis program assists State and local government in improving management information for fire and rescue operation.

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BIBLIOGRAPHY

Allen, David; Bodner, William S.; Lano, Richard I.; and Meyer, John M. A Study of the Firemen's Occupation. Sacramento, Calif.: University of California, Division of Vocational Education, and California State Department of Education, Bureau of Industrial Education, 1968.

Boeing Aerospace Company and Washington State Commission for Vocational Education, Fire Service Training. Firefighter Skills Study: Preliminary Investigation of Degradation of Firefighter Skills. Olympia, Wash.: Washington State Commission for Vocational Education, Fire Service Training, 1974.

Committee on Fire Service Professional Standards, Fire Service Professional Qualifications, Standard Series 1000, 1001-1003, 1021, 1031, 1041, National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, 1978-1984.

D.E. Hernandez, Writing Behavioral Objectives, Harper and Row, 1971.

Federal Emergency Management Agency, A Basic Guide For Fire Protection and Control Planning, U.S. Fire Administration, Emmitsburg, Maryland, U.S. Government Printing Office Stock, No. 003-000-00528-3.

International Fire Service Training Association. Fire Service Training Programs. 2nd. ed. Stillwater: Oklahoma State University, 1971.

International Fire Service Training Association. Instructor Training. 3rd. ed. Stillwater: Oklahoma State University, 1973.

R.F. Mager, Preparing Instructional Objectives, Fearn Publishers, 1975.

Rose, Homer C. The Development and Supervision of Training Programs. Chicago: American Technical Society, 1964.

Van Rijn, Paul. Job Analysis of Entry Level Fire Fighting in the District of Columbia Fire Department: A Duty/Task Approach. Washington, D.C.: U.S. Civil Service Commission, Personnel Research and Development Center, 1977.



